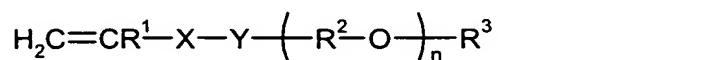


Copolymers comprising polyalkylene oxide groups and quaternary nitrogen atoms

Abstract

5 Copolymers which comprise in copolymerized form,

(A) 60 to 99% by weight of at least one monoethylenically unsaturated polyalkylene oxide monomer of the formula I



in which the variables have the following meanings:

15 X is -CH₂- or -CO-, if Y is -O-;
 is -CO-, if Y is -NH-;
 Y is -O- or -NH-;
 R¹ is hydrogen or methyl;
 R² are identical or different C₂-C₆-alkylene radicals, which may be linear or
 branched and may be arranged blockwise or randomly;
 20 R³ is hydrogen or C₁-C₄-alkyl;
 n is an integer from 3 to 50,

(B) 1 to 40% by weight of at least one quaternized nitrogen-containing
 monoethylenically unsaturated monomer,

25 (C) 0 to 39% by weight of anionic monoethylenically unsaturated monomers and

(D) 0 to 30% by weight of other nonionic monoethylenically unsaturated monomers

30 and have an average molecular weight M_w of from 2000 to 100 000,

and use of these copolymers as dispersants for clay minerals.